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Marker	Type	Location	Landmarks	Primer	SEQ. ID NO.	Direction	Enzyme	Reference
Topasin	ms	0.10		HEC CTG TAA TCC CAG CTA CTC AAT CG GGG AGA CTT AAA CAG CAG AAA TGT	1	forward		This work based on GenBank 197183
HKE 6	ms	0.22		TET TCG GGA TCA TTT CAG TAA TCT GGG ATC CCC TGT AAC TCT	2	reverse		Kirkhoff et al., <i>Genomics</i> 42:472-435 (1997). This work based on GenBank 084401
Top1	ms	0.35	HLA-DPB1	HEX GGA CAA TAT TTT CCT GAG G GCT TTG ATC TCC CCC CTC	3	forward		GBB ID 600-250-903; Carrington & Dean, <i>Human Molecular Genetics</i> 3:218 (1994)
		0.6			4	reverse		
		0.75	HLA-DQB1		5	forward		
		0.83	HLA-DRB1		6	reverse		
HLA-DRA	snp	1.0		GAG CTC GGG AGT GAG GCA GAA CAG TGA GGT GTG TTC ATT AGT CAA CTC	7	forward	DdeI	Elielou et al., <i>Nucleic Acids Res.</i> 18:7195 (1990)
Notch4	ms	1.2		FAN CGT CTC TAT TTG GGC AGT GAG GGC CGA GGA GGA AGA AGA	8	reverse		Sugiyama et al., <i>Gene</i> 189:235-244 (1997)
HSP-HOM	snp	1.6		FAN CGT CTC TAT TTG GGC AGT GAG GGC CGA GGA GGA AGA AGA	9	forward		
D6S273	ms	1.7		CCC GAT CCC ATA GGC CTC AGA GAA CC GTA ACT TAG ATT CAG GTC TGG	10	reverse	Ncol	Milner & Campbell, <i>ImmunoGenetics</i> 36:357-362 (1992)
Bu12	ms	1.8		FAN ACC AAA CCT CAA ATT TTC GG GCA ACT TTT CTG TCA ATC CA	11	forward		GBB ID 600-133-162; AFM142XN6; Gycop et al., <i>Nature Genetics</i> 7:246-259 (1994)
				HEX GGA GCT AAA AGT CCT AAC TC TGT CTC AAA ATA TTA ATG TG	12	reverse		This work based on GenBank 115025
					13	forward		
					14	reverse		
					15	forward		
					16	reverse		

Figure 1A

Marker	Type	Location	Landmarks	Primer	SEQ. ID NO.	Direction	Enzyme	Reference
1ST1	Snp	1.84		TAG TAA TTT GTT GGG TGA ATG ACA CAC ACT GCC ACT CCT CAG AT	17	forward	PvuII	DeBaeck et al., <i>Human Immunol.</i> 42:9-14 (1994). This work based on GenBank U00921
TNF δ	ms	1.84		TET CAT ACT GGG ACT CTG TCT CCA AAG AGA TCC TTC CCT GTG ACT TCT GCT TET GTG CCT GGT TCT GGA CCC TCT C	18	reverse		Nedospasov et al., <i>J. Immunol.</i> 147:1053-1059 (1991); Udalova et al., <i>Genomics</i> 16:180-186 (1993)
TNF ϵ	ms	1.84		TGA GAC AGA GGA TAG GAG AGA CAG	19	forward		Nedospasov et al., <i>Supra</i> , (1991); Udalova et al., <i>Supra</i> , (1993)
				TNF α	20	reverse		
TNF ζ	ms	1.86		HEX GGT TTC TCT GAC TGC ATC TTG TCC TCA TGG GGA GAA CCT GCAGAG AA	21	forward		Nedospasov et al., <i>Supra</i> , (1991); Udalova et al., <i>Supra</i> , (1993)
TNF β	ms	1.86		HEX CCT CTC TCC CCT GCA ACA CAC A GCC TCT AGA TTT CAT CCA GCC ACA	22	reverse		Nedospasov et al., <i>Supra</i> , (1991); Udalova et al., <i>Supra</i> , (1993)
TNF δ	ms	1.86		HEX GTG TCT GTT GCA GGG GAG AGA G GCA CTC CAG CCT AGG CCA CAG A	23	forward		Nedospasov et al., <i>Supra</i> , (1991); Udalova et al., <i>Supra</i> , (1993)
MICA	ms	2.1		TET ACA ATG GAC ACT TGG GTT ACT AAT GAG ATG CCA CCT GAA A	24	reverse		Mizuki et al., <i>Diabetes</i> 41:263-269 (1992)
					25	forward		
					26	reverse		
					27	forward		
					28	reverse		
					29	forward		
					30	reverse		
C2-4-4	ms	2.4		2.1 HLA-B 2.2 HLA-C	31	forward		Iamijo et al., <i>Tissue Antigens</i> 51:331-346 (1996)
					32	reverse		

Figure 1B

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Marker	Type	Location	Landmarks	Primer	SEQ. ID NO.	Direction	Enzyme	Reference
TUBB	ms	2.5-2.7		FAM GAT CGC TCA CCA GCA CAC TGG CTA T CTG GGC AAC AGA GCG AGC TCC GTC T	33	forward		Iuliani & Hobbs, <i>Am J Hum Genet</i> , 46:963-969 (1990); This work based on GenBank X001734
C3-2-11	ms	2.9		FAM TCC TTA CAG CAG AGA TAT GTG G AGA TGG CAT TTG GAG AGT GCA G	35	forward		Taniguchi et al., <i>Science</i> , (1998)
		3.4	HLA-A		36	reverse		
D6S510	ms	3.4		FAM CAA CAC ACT GAT TTC CAT AGC AAT GGG CTA CTA CTT CAC ACC	37	forward		GDB ID 600-249-443; Gandon et al., <i>Human Molecular Genetics</i> 3:1210 (1994)
MOG11	ms	3.9		HEX GAA ATG TGA GAA TAA AGG AGA GAT AAA GGG GAA CTA CTA CA	38	reverse		Roth et al., <i>Human Immunol</i> , 43:216-287 (1995)
					39	forward		
					40	reverse		

Figure 1C

Association of MHC markers in the Jewish case-control panel

Marker	Number of alleles	P	Allele	Allele Frequency	
				CD	Control
Topasin	12	0.88			
HKE6	9	0.90			
Tap1	9	0.44			
HLA-DRA	2	0.021			
Notch4	7	0.011	2	35%	25%
HSP-HOM	2	0.12			
D6S273	7	0.84			
Bat2	12	0.12			
LST1	2	0.30			
TNFd	6	0.34			
TNFe	3	0.23			
TNFc	2	0.33			
TNF α	13	0.37			
TNF β	5	0.78			
MICA	11	0.87			
C2-4-4	11	0.70			
TUBB	5	0.014	4	5%	37%
C3-2-11	20	0.92			
D6S510	9	0.79			
MOG11	10	0.31			

Figure 2

Class II		Class III				Class I				HLA-A	
HLA-DRB1	HLA-DRA	TNF	HLA-B	HLA-DRB1	HLA-DRA	HLA-A	HLA-B	HLA-C	No. Transmitted	Odds Ratio (95%CI)	
2	2	2	0.49	0.011	0.050	0.0044	0.022	0.025	19	1.27 (0.58, 2.79)	
2	2	2	0.011	0.011	0.0044	0.0044	0.022	0.025	15	2.07 (4.03, 4.24)	
2	2	2	0.050	0.050	0.025	0.025	0.025	0.025	6	2.5 (0.83, 8.41)	
2	2	2	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	11	2.64 (1.2, 6.05)	
2	2	2	0.022	0.022	0.022	0.022	0.022	0.022	23	1.39 (0.76, 2.56)	
2	2	2	0.025	0.025	0.025	0.025	0.025	0.025	0	10 (0.5, 50)	
2	2	2	0.025	0.025	0.025	0.025	0.025	0.025	4	43.25 (0.88, 15.2)	
2	2	2	0.050	0.050	0.050	0.050	0.050	0.050	15	2.5 (0.83, 8.41)	
2	2	2	0.00097	0.00097	0.00097	0.00097	0.00097	0.00097	16	8.0 (1.55, 100)	
2	2	2	0.025	0.025	0.025	0.025	0.025	0.025	5	10.0 (0.5, 50)	
2	2	2	0.025	0.025	0.025	0.025	0.025	0.025	5	10.0 (0.5, 50)	
2	2	2	0.025	0.025	0.025	0.025	0.025	0.025	0	0	

Figure 3